

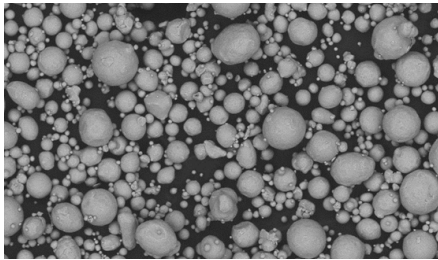
# TruForm™ Metal Powders for Additive Manufacturing

## TruForm™ 64 Metal Powder

TruForm™ 64 and TruForm™ 64ELI exhibit high strength, low density, and excellent corrosion resistance. Ti6Al4V is the most widely used titanium alloy, and powder is available in standard Grade 5 and Grade 23 (ELI) as well as others. Parts produced are commonly found in the aviation, automotive, and medical industry.

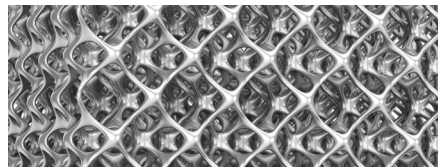
### Particle Size Distribution

Powders are available in a wide variety of particle size distributions and can be customized for your applications.



### TruForm™ Metal Powders for All Additive Manufacturing Processes Including:

- Direct Metal Deposition (DED)
- Direct Metal Laser Sintering (DMLS)
- Electron Beam Melting (EBM)
- Laser Metal Deposition (LMD)
- Selective Laser Melting (SLM)



Element	Typical Composition
Ni	Bal
Al	5.50 - 6.50
V	3.50 - 4.50
Fe	0.25 Max
C	0.08 Max
O*	0.2 Max
O**	0.13 Max
N	0.05 Max
H	0.015 Ma
Others	0.10 Max
Total Others	0.40 Max

\*Grade 5  
\*\* Grade 23

### Typical Mechanical Properties (contact us for additional property data)

Ti-64 Grade 5

Ti-64 Grade 23

Room Temperature	Typical HIP Properties	HT Min. ASTM B348	Typical HIP Properties	HT Min. ASTM F136
Tensile Strength (XY)	1020 ± 40 MPa 148 ± 6 ksi	895 MPa 130 ksi	970 ± 40 MPa 141 ± 6 ksi	895 MPa 125 ksi
	1000 ± 40 MPa 145 ± 6 ksi			
Tensile Strength (Z)	943 ± 50 MPa 137 ± 7 ksi	828 MPa 120 ksi	920 ± 50 MPa 133 ± 7 ksi	795 MPa 115 ksi
	925 ± 50 MPa 134 ± 9 ksi			
Elongation (XY)	12 ± 2%	10%	14 ± 2%	10%
	13 ± 3%			



#### Powder Atomization Capabilities

Praxair is a worldwide resource for fine and spherical, gas-atomized powders and a leader in vacuum induction melt argon gas atomization (VIM-AGA) technology. We operate 5 VIM AGA units and pour more than 3 million lbs of powder each year.

#### AM Quality Lab

Our quality laboratory is registered as an ISO-9001:2008, Nadcap AS7101, and AS9100 facility. We offer 100 percent lot inspection along with a certificate of analysis that details the variety of quality tests we conduct from our state-of-the-art facility to ensure your printed products meet your performance and surface finish specifications.



#### Additive Manufacturing Lab

We are printing parts every day with our AM metal powder to ensure that layer by layer, you are getting a premium product that can produce products to your exacting specifications.



A global leader in metal powders for 50 years, aerospace—grade is our benchmark.

With five powder atomizers, a fully-outfitted AM quality lab, an R&D lab complete with a metal 3D printer, and a staff of credentialed experts...

Praxair is the only partner you need to deliver on the promise of metal AM

**TruForm™**  
Metal Powders



#### CONTACT US

Contact our technical sales team for guidance in selecting a material, requesting an alloy not listed here, or for additional details.

[praxairsurfacetechologies.com/am](http://praxairsurfacetechologies.com/am)

Contact us at: 1-317-240-2650 or [praxair\\_am@praxair.com](mailto:praxair_am@praxair.com)

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